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EXAMINER

HERNANDEZ, NELSON D

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 06/17/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/576,221

Applicant(s)

OHMURA ET AL.

Examiner

Nelson D. Hernandez

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 17-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2, 3, 8 and 10.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group 1, claims 1-16, 32-36 and 40-46 and Species 1 in the reply filed on April 28, 2004 is acknowledged. The traversal is on the ground(s) that the subject matter of all claims and species is sufficiently related that a thorough search for the subject matter of any of one Group of claims or species would encompass a search for the subject matter of the remaining claims and species and that the entire search and examination search of the entire application could be made without serious burden. This is not found persuasive because Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-16, 32-36 and 40-46, drawn to a self-contained image storage system connectable to a digital camera or the like, classified in class 348, subclass 231.7.
- II. Claims 17-31 and 37, drawn to a digital camera with remote control capability and connected to peripheral devices, classified in class 348, subclass 211.99 or class 348, subclass 207.99.
- III. Claims 38-39, drawn to a cable system enabling connection between a digital camera and external peripheral devices, classified in class 348, subclass 211.1.
- IV. Claims 47-75, drawn to an integrated television system capable of storing digital image, classified in class 348, subclass 374 or class 348, subclass 383.

The inventions are distinct, each from the other because of the following reasons:

Inventions I, II, III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as a digital camera or the like; invention II has separate utility such as the use of a digital camera with remote control capability and connected to peripheral devices; invention III has separate utility such as a cable system enabling connection between devices; invention IV has separate utility such as integrated television system. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

For group I above, there are patentably distinct species of the claimed invention as best analyzed below:

Species 1 (Claims 1-16)

Species 2 (Claims 32-33)

Species 3 (Claims 34-36)

Species 4 (Claims 40-44)

Species 5 (Claims 45-46)

For group II above, there are patentably distinct species of the claimed invention as best analyzed below:

Species 1 (Claims 17-24)

Species 2 (Claims 25-27)

Species 3 (Claims 28)

Species 4 (Claims 29-30)

Species 5 (Claim 31)

Species 6 (Claim 37)

For group IV above, there are patentably distinct species of the claimed invention as best analyzed below:

Species 1 (Claims 47-60)

Species 2 (Claims 61-75)

The requirement is still deemed proper and is therefore made FINAL.

2. The applicant is reminded that upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 5 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Aruga, US 6,429,896 B1 in view of Misawa, US 6,208,380 B1.

Regarding claim 1, Aruga discloses an image storage (Fig. 3: OM) from which the stored image is retrievable comprising: a memory (Fig. 3: 5) for storing a plurality of

image data taken by a digital camera (Fig. 3: CA); a digital circuit (Fig. 3: 26) for retrieving desired one of the plurality of image data from the memory; a connector (See fig. 3, items 7, 10 and 29) for electric connection with the digital camera for data transmission therewith; a detector (Fig. 3: 27a) capable of detecting the connection of the digital camera to the connector; and a controller (Fig. 3: 26) to have the image storage receive the image data transmitted from the digital camera through the connector to store the same in the memory (Col. 3, lines 17-30; col. 4, lines 42-60; col. 5, lines 15-23; col. 6, lines 37-51). Aruga does not explicitly disclose that the image storage receives the image data transmitted from the digital camera in response to the detection of the connection by the detector.

However, Misawa teaches a digital camera (Fig. 1: 10) with a detachable memory (Fig. 1: 12), wherein when said digital camera detects that the detachable memory is connected, images are automatically transferred from the built-in memory (Fig. 1: 42) to said detachable memory (Col. 2, lines 6-27; col.4. lines 12-30).

Therefore, taking the combined teaching of Aruga in view of Misawa as a whole, it would have been obvious to one of ordinary skilled in the art to modify the image storage in Aruga by automatically transfer the images ^{from} ~~from~~ the camera to the image storage in response to a connection detection between said camera and the image storage. The motivation to do so would reduce the complicated operations for the transfer of the image data and the initialization for the built-in memory as suggested by Misawa (Col. 2, lines 21-25).

Aruga and Misawa do not explicitly teach that the memory is a built-in memory of a large capacity. However, it would have been obvious to have the memory integrated in the image storage device taught by Aruga with a size capacity as needed by the user.

Regarding claim 3, Aruga teaches that the controller is designed to selectively receive the image data, which is retrievable by the digital circuit (Col. 3, lines 17-30; col. 4, lines 42-60).

Regarding claim 5, Aruga teaches that the function of the controller to have the image storage store the image data is designed to be carried out in accordance with a program, which is started in response to the detection of the connection by the detector (See figs. 8 and 10; Col. 4, line 60 – col. 5, line 31).

Regarding claim 7, Aruga teaches that the function of the controller to have the image storage receive the image data is designed to be carried out in accordance with a program, which is started in response to the detection of the connection by the detector (See figs. 8 and 10; Col. 4, line 60 – col. 5, line 31).

5. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Aruga, US 6,429,896 B1 in view of Misawa, US 6,208,380 B1 and further in view of Asakawa, Patent 6,135,809.

Regarding claim 2, the combination of Aruga in view of Misawa does not teach that the detector includes a mechanical contact and a sensor for sensing the movement of the mechanical contact.

However, Asakawa teaches a card connector having electrical contacts forming electrical connections with a memory card inserted therein and detecting or sensing unit including a set of sensing members connected to a detecting circuit indicating the state

when the card is fully inserted into the connector, and one of the sensing members (Fig. 3, items 20-20c, 52 and 54) has a bend that exerts pressure on one surface of the card in a perpendicular direction relative to the one surface and closes or opens the detecting circuit (See figs. 3 and 5; col. 1, lines 57-65; col. 2, line 59 – col. 3, line 39).

Therefore, taking the combined teaching of Aruga in view of Misawa and further in view of Asakawa as a whole, it would have been obvious to one of ordinary skilled in the art to modify the connection means in Aruga by including sensing members connected to the detecting circuit to determine if the connection means for connecting the camera and the image storage is fully inserted. Doing so would help the image storage to determine whether the camera is properly connected to the image storage, providing reliable electrical connection between the devices as suggested in Asakawa (Col. 1, lines 46-51).

6. Claims 4, 6 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Aruga, US 6,429,896 B1 in view of Misawa, US 6,208,380 B1 and further in view of Koyama, US 6,237,106 B1.

Regarding claim 4, the combination of Aruga in view of Misawa does not teach that the controller automatically turns on the power source in response to the detection of the connection by the detector.

However, Koyama teaches a communication method wherein when a device detects connection to an external apparatus, it automatically changes from sleep mode to active mode enabling communication between both devices (Col. 17, line 60 – col. 18, line 22).

Therefore, taking the combined teaching of Aruga in view of Misawa and further in view of Koyama as a whole, it would have been obvious to one of ordinary skilled in the art to modify the image storage in Aruga with a circuit to change the status of said image storage from a sleep mode to active mode in response to a connection detected between the camera and said image storage. Doing so would enable the image storage to reduce power consumption and to establish a communication path to another apparatus when necessary as suggested by Koyama (Col. 2, lines 15-18).

Regarding claims 6 and 11, the combination of Aruga in view of Misawa does not teach that the controller automatically transmits a signal to the digital camera to turn on the same in response to the detection of the connection by the detector.

However, Koyama teaches a communication method wherein when a device detects connection to an external apparatus, it automatically changes from sleep mode to active mode enabling communication between both devices. Also teaches that after elapsed of a predetermined period of time after communication is terminated the device switch back to sleep mode (Col. 17, line 60 – col. 18, line 22).

Therefore, taking the combined teaching of Aruga in view of Misawa and further in view of Koyama as a whole, it would have been obvious to one of ordinary skilled in the art to modify the image storage in Aruga with a circuit to change the status of the camera from a sleep mode to active mode in response to a connection detected between the camera and said image storage, and to switch back to sleep mode after elapsed of a predetermined period of time after transmission is terminated. The motivation to do so would enable the camera to reduce power consumption and to

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establish a communication path to the image storage when necessary as suggested by Koyama (Col. 2, lines 15-18).

7. Claims 8 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Aruga, US 6,429,896 B1 in view of Misawa, US 6,208,380 B1 and further in view of Niikawa, US 6,668,134 B1.

Regarding claim 8, the combination of Aruga in view of Misawa does not teach that the controller includes a program to automatically delete an incomplete image data, which may be caused by an interruption of the data transmission from the digital camera.

However, Niikawa teaches an image recording device (Fig. 1: 1) that when is transferring data to a second recording medium a program deletes the data stored in the memory that belongs to a transferred file that have been interrupted or to an erroneous file transferred (Col. 14, lines 1-22).

Therefore, taking the combined teaching of Aruga in view of Misawa and further in view of Niikawa as a whole, it would have been obvious to one of ordinary skilled in the art to modify the image storage in Aruga by having a program to delete or erase data that has been erroneous transferred or transferred incomplete. The motivation to do so would help the image storage to avoid storage of erroneous data in the memory, allowing effective use of memory capacity as suggested in Niikawa (Col. 14, lines 1-22).

Regarding claim 9, the combination of Aruga in view of Misawa does not teach that the image data is managed in accordance with a directory structure in the digital camera, and wherein the controller has the image storage take over at least a part of

the directory structure in the built-in memory when storing the image data transmitted from the digital camera.

However, Niikawa teaches an image-recording device that the image data is managed according with a directory structure (See figs. 11 and 13) in the image-recording device. Niikawa also teaches transferring at least part of the directory structure in the image-recording device (Col. 13, lines 25-45; col. 14, lines 14-22).

Therefore, taking the combined teaching of Aruga in view of Misawa and further in view of Niikawa as a whole, it would have been obvious to one of ordinary skilled in the art to modify the image storage in Aruga by having a program to manage the image data according with a directory structure in the camera and to transfer at least part of said directory structure. The motivation to do so would enable the image storage to maintain correspondence between the image data in the image-recording device and the memory as suggested in Niikawa (Col. 10, lines 52-64).

8. Claim 10 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Aruga, US 6,429,896 B1 in view of Misawa, US 6,208,380 B1 and further in view of Chatani, JP 08069684 A.

Regarding claim 10, the combination of Aruga in view of Misawa does not teach that the digital camera is of a type with a rechargeable power source, and the image storage further comprising a second controller to automatically allow the rechargeable power source to be charged in response to a termination of the image data transmission from the digital camera to the image storage.

However, Chatani teaches a digital camera (Fig. 1: 10) performs automatic recording and backup of charge of the built-in battery charger (Fig. 1: 9) having a

charge circuit (Fig. 1: 21), wherein said charge circuit starts to charge said battery (Fig. 3, step S104) after image data is transferred from the digital camera to the storage means (Fig. 1: 2) (Translation of the detailed description, ¶ 0024 - ¶ 0027).

Therefore, taking the combined teaching of Aruga in view of Misawa and further in view of Chatani as a whole, it would have been obvious to one of ordinary skill in the art to modify the image storage in Aruga by integrating a charge circuit to automatically charge the battery after transferring image data from the camera to the image storage. The motivation to do so would allow the image storage to keep the battery of the camera charged after image data transfer is finished so the user does not need to charge the battery using a different device.

Regarding claim 13, the combination of Aruga in view of Misawa does not teach that the controller transmits a signal to the digital camera to delete the image data, which has already been transmitted to the image storage and stored in the built-in memory.

However, Chatani teaches a digital camera that after transferring the image data to a storage medium (Fig. 1: 2), said camera deletes the data stored in the semiconductor memory (Fig. 1: 8) (Translation of detailed description, see ¶ 0024-0027).

Therefore, taking the combined teaching of Aruga in view of Misawa and further in view of Chatani as a whole, it would have been obvious to one of ordinary skill in the art to modify the image storage in Aruga by deleting the images in the digital camera memory after being transferred from said camera to the image storage. The motivation to do so would help the camera to increase the memory allowing the user to capture more images as suggested by Chatani (Translation of detailed description, see ¶ 0026).

9. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Aruga, US 6,429,896 B1 in view of Misawa, US 6,208,380 B1 and further in view of Morikawa, Patent 5,528,285.

Regarding claim 12, the combination of Aruga in view of Misawa does not teach that the digital camera is of a type with a rechargeable power source, and the image storage further comprising a power source, wherein the controller automatically turns off the power source in response to a completion of a charging for the rechargeable power source of the digital camera.

However, Morikawa teaches a TV telephone system wherein a camera (Fig. 18: 400) is placed on a base station (Fig. 18: 450) and automatically the rechargeable battery (Fig. 26: 511) of the camera will be charged to a sufficient level when a low power level is detected (Col. 32, lines 19-39). Morikawa discloses turning off the power supply in the base station in response to a completion of charging by teaching that the base station will charge the battery to a sufficient power level when a low power is detected (Col. 32, lines 19-39).

Therefore, taking the combined teaching of Aruga in view of Misawa and further in view of Morikawa as a whole, it would have been obvious to one of ordinary skilled in the art to modify the image storage in Aruga by incorporating a charging system to automatically charge the battery in the camera to a sufficient level when a low power level is detected. The motivation to do so would help to improve the operability and portability of the camera since it will eliminate the necessity of replacing the batteries as suggested in Morikawa (Col. 32, lines 19-39).

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10. Claims 15 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Aruga, US 6,429,896 B1, Misawa, US 6,208,380 B1, Chatani, JP 08069684 A and further in view of Ikeda US 2002/0106199 A1.

Regarding claims 15 and 16, the combination of Aruga, Misawa and Chatani does not teach that an image data is protected against a deletion according to a digital camera setting is not deleted by the signal.

However, Ikeda teaches an image recording apparatus (Fig. 1) that verifies whether or not the data in a recording medium is write-protected when trying to access the data. If the data is write-protected the camera displays a message such as "write prohibited" and prompts the user to cancel the write-protect before managing the image data, else if the data is not write-protected the camera displays the image data (Page 6, ¶ 0071-0072).

Therefore, taking the combined teaching of Aruga, Misawa and Chatani in view of Ikeda as a whole, it would have been obvious to one of ordinary skilled in the art to modify the image storage to verify whether a selected data is write-protected before trying to manage it (i.e. erase) and to display a message telling whether or not the data can be accessed by the user prior to manage or delete. The motivation to do so would help the camera to protect image data from unwanted deletion and to aware the user of whether image data is or not protected as suggested in Ikeda (Page 6, ¶0071).

Allowable Subject Matter

11. Claim 14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: the prior art of records neither teaches nor suggest obvious the limitations of sending a signal from a external storage device to a digital camera so as to forcibly delete the image data from the digital camera even if the image data is protected against deletion according to a digital camera setting.

Ikeda, US 2002/0106199 A1 teaches an image recording apparatus (Fig. 1) that verifies whether or not the data in a recording medium is write-protected when trying to access the data. If the data is write-protected the camera displays a message such as "write prohibited" and prompts the user to cancel the write-protect before managing the image data, else if the data is not write-protected the camera displays the image data (Page 6, ¶ 0071-0072), however Ikeda does not teaches forcibly deleting the image data when the image data is protected, it just prompts a message to the user to unprotect the data so as to manage it (i.e. read, write or erase).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernandez whose telephone number is (703) 305-8717. The examiner can normally be reached on 8:30 A.M. to 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nelson D. Hernandez
Examiner
Art Unit 2612

NDHH
June 7, 2004



NGOC-YEN VU
PRIMARY EXAMINER